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ABSTRACT

The 70001 Training and Employment Institute offers self-paced instruction through the use of computers and audiovisual materials to young people to improve opportunities for success in the work force. In 1988, four sites were equipped with Apple stand-alone software in an integrated learning system that included courses in reading and math, test scoring, and recordkeeping. 70001 staff evaluated participants and staff at the four sites from August 1, 1988 through June 30, 1989. The 84 participants spent from several weeks to more than 4 months on the networked system. On average, they worked through 16 problems for every 10 minutes spent on the computer. Eighty-two of the 84 participants felt successful as they worked through the program. Average grade gains for 47 participants at 3 sites were 1.41 for reading and 1.92 for math. The fourth site used a different scale, with results comparable to the other three sites, roughly equivalent to one grade gain for every 100 hours of instruction. 70001 field staff pointed out five weaknesses in the use of computers to present instructional material: a lack of clarity in some learning concepts, a need for special inservice training, limitations in student assessment procedures, difficulty in using some computer commands, and the need for suggestions to meet needs of students at varying levels. (The paper includes 15 pages of data tables, surveys, and survey responses.) (CML)

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NETWORKED LEARNING in 70001 Programs

a Paper presented by
Marija Futchs Fine
Adult Literacy & Technology Conference
Louisville, KY July 1989

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70001 Training and Employment Institute, a national nonprofit organization, provides education, employment services, and motivation to thousands of at-risk youngsters every year. 70001's model for serving young people (called Associates) is designed to improve opportunities for success in the workforce. 70001 operates educational service centers to offer self-paced instruction though the use of computers and audio visual materials.

Based on a review of programs using standalone (i.e., floppy disc-based) software programs since 1985, 70001 looked for an improved system that ensured use of instructional software already on hand, minimized recordkeeping requirements, and simplified staff training. In 1988, 70001 retrofitted four of its sites using Apple standalone software by introducing an integrated learning system that networked the Apple computers on site. The configuration, designed by Ideal Learning, Inc., has courses in reading and math programmed to run on Apple II computers connected with the CORVUS Hard Disk System. Test scoring and recordkeeping are also included.

70001 national staff prepared evaluation forms for Associates and staff at the four participating sites to complete for the period August 1, 1988 up through June 30, 1989. Pre- and post-test scores (Test for Adult Basic Education [TABE], General Education Development [GED], Comprehensive Adult Student Assessment System [CASAS]) on Associates were also requested. Results of these findings were presented at the Adult Literacy and Technology Conference July 20-22, 1989, in Louisville, Kentucky.

The nine 70001 field staff were unanimous in their judgment that the networked learning materials could be used independently and that this program would make a meaningful addition to most classroom activities.

The 84 Associates completing the student surveys spent from several weeks to more than four months on the networked system. On average, they worked through 16 problems for every 10 minutes spent on the computer, a high rate of response that led to comments about the "convenience", "faster learning" and "challenge" of using this kind of

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integrated systems learning approach. Almost all (82 out of 84) felt successful as they worked through the program. The average grade gains for 47 Associates at three sites were 1.41 for reading and 1.92 for math. The highest individual reading grade gain was 6.6 grades; the greatest individual grade gain in math was 4.2 grades. The fourth program graded achievement for its 37 Associates according to the CASAS model, which uses a different (point) scale. There, too, learning gains were comparable to the other programs (5 to 10 points) or, roughly equivalent to one grade gain for every 100 hours of instruction.

Associates and staff also discussed system drawbacks. Although field staff members provide reasons for their "weak" ratings of various features in the networked system, none thinks these drawbacks are serious. The same is true for Associates, 19% to 32% of whom identified two particular problems that affected their learning.

70001 field staff point to five weaknesses in the use of computers to present instructional material: a lack of clarity in some learning concepts, a need for special in-service training, limitations in student assessment procedures, difficulty in using some computer commands, and need for suggestions to meet needs of students at varying levels.

Of the 84 Associates surveyed:

* 15 (19%) were frustrated with parts of the program.
* 3 (4%) could not see their progress as they worked through the program.
* 2 (3%) did not feel successful as they went the program.
* 12 (15%) thought the material was too easy.
* 6 (8%) thought the material was too difficult.
* 7 (9%) thought the material was sometimes too easy and other times too difficult.
* 2 (3%) did not enjoy doing the program.

Two possible reasons why students felt the instructional pace was uneven are that the networked version of the curriculum used does not include a 'branching' feature, that would automatically move to a remedial exercise if a student missed one or more questions. The second possible explanation is that 70001 instructors chose to assign Associates the preset curriculum of the networked model, rather than exercise the option of customizing it to meet individual student needs.

In summary, both staff and Associates felt that networked learning enabled them to learn in a manner that was more interesting and efficient. Associates made comments such as the following: "You learn how to operate a computer and you sort of have a tutor ... It demonstrates the problems so that you understand step-by-step ... It makes learning fun in a different way ... It teaches more indepth and quicker than any other system." This year, two more 70001 sites are planning to introduce the networked system to their programs.

Number of sites reporting: 4 Surveys Returned: 84

QUESTION	ANSWERS COUNTED	TIME SPENT IN IDEAL LEARNING	
1. How long have you used Ideal Learning?	76	< 1 month:	12
		1 month:	28
		2 months:	17
		3 months:	13
		> 4 months:	6
2. How many problems do you do in 10 minutes?	80	Low:	3
		High:	40
		Average:	16
3. Do you get frustrated with any part of the program?	83	Yes:	15
		No:	68
4. Can you see your progress as you work through the program?	83	Yes:	80
		No:	3
5. Do you feel successful as you go through the program?	84	Yes:	82
		No:	2
6. Do you think the material is too easy? too difficult? just right?	83	Easy:	12
		Hard:	6
		Just right:	58
		Easy & hard:	7
7. How is Ideal Learning different from reading books or listening to tape cassettes in the learning center?	61	saves time:	3
		challenging:	4
		more interesting:	4
		seeing what you do:	5
		learn different things:	5
		easier:	6
		fun:	7
		it's like a tutor:	9
8. Do you enjoy this program?	83	Yes:	81
		No:	2
9. Any additional comments?	26	like the teacher:	10
		improvements:	5
		it's fun:	4
		endorsements:	4
		great learning experience:	4

Surveys returned:

Dallas	= 42
Harris County	= 11
Richmond	= 15
San Joaquin	= 16
TOTAL	84

1. How long have you used Ideal Learning?

70001 SITE	ANSWERS COUNTED	TIME SPENT IN THE PROGRAM -1mo	1mo	2mo	3mo	+4mo
Dallas	36	2	10	11	9	4
Harris County	9	3		2	2	2
Richmond	15	7	2	4	2	
San Joaquin	16		16			

2. How many problems do you do in 10 minutes?

SITE	ANSWERS COUNTED	LOW	HIGH	AVG	DON'T KNOW
Dallas	42	3	20	15	6
Harris County	7	5	25	12	6
Richmond	15	3	40	12	
San Joaquin	16	20	30	25	

3. Do you get frustrated with any part of the program? If yes, please explain.

SITE	ANSWERS COUNTED	YES	NO
Dallas	42	10	32
Harris County	11	1	10
Richmond	14	4	10
San Joaquin	16	0	16

Explanations/Yes:

DALLAS:

The fact that I am the only student in class causes some frustration.
Sometimes I don't take time to study like I should.
When I get wrong answers.(4x) If I don't understand it right away.(2x) If I do not know how to do it.

HARRIS COUNTY:

I think that more time should be given to work on the system.

RICHMOND:

The computer doesn't explain why you get a question wrong.
When it does not tell you to put the percent sign in, then you get it wrong.
I don't have paper to write and determine what the answer is.
Getting into Writer's Network.

4. Can you see your progress as you work through the program?

SITE	ANSWERS COUNTED	YES	NO
Dallas	41	39	2
Harris County	11	11	0
Richmond	15	14	1
San Joaquin	16	16	0

Comments/Yes:

A lot ... I'm way ahead of where I was when I started this program ... Not really, but I'm hoping I will ... I think so ... Some days ... a little.

5. Do you feel successful as you go through the program?

SITE	ANSWERS COUNTED	YES	NO
Dallas	42	41	1
Harris County	11	11	0
Richmond	15	14	1
San Joaquin	16	16	0

Comments/Yes:

Very much ... very successful ... very satisfied and pleased with accomplishments ... in many ways ... more and more ... when I pass the tests ... I think so (2x) ... sometimes ... when I understand my problem and come up with the correct answer ... and it makes me feel good.

6. Do you think the material is too easy? too difficult? Just the right speed?

SITE	ANSWERS COUNTED	EASY	HARD	JUST RIGHT	EASY & HARD
Dallas	42	10	3	23	6
Harris County	11	2		8	1
Richmond	14		3	11	
San Joaquin	16			16	

7. How is Ideal Learning different from reading books or listening to tape cassettes in the learning center?

SITE	RESPONSES INCLUDED	DON'T KNOW
Dallas	35	6
Harris County	9	
Richmond	14	
San Joaquin	3	

(Dallas)

It can be fun.(5x) It's easier.(4x) It's better.(3x) It's more interesting.(3x) It has better stories. It explains more. I like it.

I read for myself; that sometimes makes it better for myself. You work like you want to. You work and then you take a test.

You know what to do. You're doing it yourself. You do it.

Seeing is better than hearing. You see it. It's there in front of you. You see what you do.

The timing is much faster in learning. It makes you succeed. It makes you learn. It makes you work harder. It helps you to feel that you know what you're doing. It tells you when you're wrong. It's a challenge.

(Harris County)

You're going at your own pace, learning and discovering. It's the best thing anyone could have in learning; I think reading books is dead. It's more interesting; it gives learning a new twist. It helps you improve your ability. The screen is better than reading. Saves a lot of time, paper and frustration. It's a more pleasant atmosphere. The difference is you get to work with a computer that in other words talks back.

Not much different.

(Richmond)

You learn how to operate a computer and you sort of have a tutor. It helps you learn other things that you don't know; it gives you better things to learn for doing other types of stuff. You can work on the computer and learn different things.
They show just how to do it. It's more understandable. It demonstrates the problems so that you understand step-by-step. It gives you a second chance to do it correctly, and the mistakes you already made you'll know because it gives you the correct answer.
It makes learning fun in a different way. Reading books is boring. But the reading and doing stuff on the computer is fun. It gives you a chance to put all you've got into the computer. I like it better. It's more convenient. It teaches more indepth and quicker than any other system.

(San Joaquin)

You can do it at your own speed.
If you get an answer wrong, it goes over the problem and explains to you how to get the right answer.
It's much better than a book.

8. Do you enjoy doing the program?

SITE	RESPONSES COUNTED	YES	NO
Dallas	41	41	0
Harris County	11	11	0
Richmond	15	13	2
San Joaquin	16	16	0

Comments/Yes:

Very much (2x) ... an awful lot ... most of the time (2x) ... so far ... a little.

9. Do you have any additional comments about Ideal Learning?

SITE	RESPONSES INCLUDED
Dallas	6
Harris County	7
Richmond	5
San Joaquin	8

(Dallas)

I like it.(2x) It has made learning fun. It's a good program.(2x) Put sound to it.

(Harris County)

I feel that a specific amount of time should be assigned to those who are interested in working (on) the system instead of just whenever they feel like it. It would make things more organized. (2x)
I think this is a very great program, because if it was not for this program I would not be going to the Navy.
I wish we could expand.
It is very fun because I like working on the computer.
It's a good program. It helps expand and strengthen your learning capability.

(Richmond)

I'm going to learn everything about Ideal Learning.
It should be a little easier.
I want to stay on the program for awhile. The time spent should be longer for the use of the computer.
One day, I hope this will be the teaching tool of all schools, public and private.

(San Joaquin)

I think computers help a lot with learning. Computers help me a lot with learning. I find it challenging.
I can work at my own speed. I can improve on my level. I can go in and start at any time.
Learning is finally fun. I want all of it computerized.

JUNE 1989

SAN JOAQUIN - 3
RICHMOND - 3
DALLAS - 2
HARRIS COUNTY - 1
9 TOTAL

EVALUATION CHECKLIST

FOR INSTRUCTIONAL PROGRAMS AND/OR MATERIALS
(WITH EXPLANATIONS FOR (S) AND (W) RATINGS)

EXCELLENT = (E) SATISFACTORY = (S) WEAK = (W) NON APPLICABLE = (N/A)

GOALS AND OBJECTIVES	E	S	W	NA
1. Purpose and rationale fully explained	2*	7		
2. Goals and objectives clearly identified		9		
3. Content directed to stated goals and objectives	1	8		
4. Procedures to determine student's readiness		3	6	

1) There is no pre-test for overall reading or math competencies.
2) Student can pass a learning objective after answering only 2 or 3 questions (out of 10 or more) on a pre-test by pressing the ESC key.

5. Student achievement assessment included	3	5	1	

There is no comprehensive assessment provided at any one time. (only mastery by separate learning objectives).

CONTENT OF MATERIALS				
6. Concepts well developed and sequentially developed	5	4		
7. Clear and non-conflicting concepts		6	3	

1) Conflicting concepts were machine (computer) related (not related to academic content).
2) Math levels 6 and 7 (fractions and percents with fractions) appear to be similar.

8. Skills sequenced, introduced, and reviewed	3	6		
9. Major points clearly identified	2	7		
10. Computer assisted instructional materials integrated	3	6		
11. Materials can be worked with independently or with minimum assistance	9			

*NUMBERS INDICATE HOW MANY RESPONDED THAT WAY

	E	S	W	NA
12. Reading level is appropriate for student in program	7	1	1	

Comprehension I for Reading was too low a level for students at this site.

13. Content will stimulate and challenge students	2	7		

OBJECTIVITY

14. Information is valid & factual	2	7		
15. Racial, sexual, and religious biases balanced	3	2		4

COMPONENTS AND ORGANIZATIONS

16. Materials are of adequate proportions and easy to manipulate	4	5		
17. Materials are relatively easy to use	5	4		

Too easy for students to press a wrong key (ESC) that prevents their going back into the program, which means that the teacher has to reassign them.

18. Requires special inservice training		8	1	

1) Special inservice is required for learning how to get into Writer's Network.
2) Needed to learn certain functions: how to crunch figures if date was not changed on a daily basis, and how to properly delete a student from the database.

19. Materials are well designed and packaged	4	5		

TEACHER MATERIALS

20. Adequate teacher guides or materials provided	4	4	1	

Manuals were late in arriving (2 wks), during which time it was difficult to figure out how to solve certain problems.

21. Provision for teacher-student interaction		8	1	

Not Applicable to Ideal Learning (designed to be self-teaching device). However, Writer's Network, a recent addition, is designed to be student-teacher interactive.

	E	S	W	NA
22. Suggestions and instructions for meeting needs of students of varying levels are included	2	5	2	___

User's previous experience with a structured (hierarchical) learning system created an initial adjustment problem for this learning program, which offers several branching routines for learning.

SUMMARY AND RECOMMENDATIONS

24. Materials do what they are intended to do	5	1	3	___

Independent study inherent to the program is flawed by certain glitches that require teacher intervention.

1) Student cannot go backwards in a Math program by pressing TAB key (as a student can do in Reading)
2) A computer sometimes does not accept a student's name and password on one machine, but will on another machine.

25. Instructional materials or program would make a meaningful addition to most classroom activities	9	___	___	___
26. I would recommend the purchase of these materials to other programs	6	3	___	___

OTHER AREAS OR ASSESSMENT CONCERNS

27. Employment Skills	___	___	2	___
28. Life Skills	___	___	2	___

(User does not have access to software that is now available under Ideal Learning)

PRE- AND POST- TABE SCORES FOR 70001 SITES USING IDEAL LEARNING SYSTEM

SITE		READING Entry	READING Exit	MATH Gain	MATH Entry	Math Exit	Grade Gain	Weeks in Program
DALLAS:	1)	2.8	5.3	2.5	5.3	6.6	1.3	8
21 records	2)	4.8	7.3	2.5	5.5	10.0	4.5	10
	3)	5.9	7.7	1.8	7.0	7.7	.7	6
	4)	6.0	7.0	1.0	6.3	12.0	6.6	8
	5)	9.7	12.5	2.8	9.6	10.7	1.1	8
	6)	2.4	4.5	2.1				8
	7)	4.8	6.0	1.2				12
	8)	5.2	6.0	.8				14
	9)	5.7	6.5	.8				6
	10)	6.0	7.0	1.0				10
	11)	8.4	9.6	1.2				6
	12)	3.4	5.8				2.4	14
	13)	3.9	5.1				1.2	8
	14)	4.9	7.0				2.1	6
	15)	6.3	12.9				6.6	14
	16)	7.1	8.3				1.2	6
	17)	7.7	7.8				0.1	6
	18)	7.8	8.8				1.0	6
	19)	7.9	9.1				1.2	3
	20)	8.1	11.8				3.7	4
	21)	9.2	11.0				1.8	12

DALLAS SUMMARY REPORT:

GRADE GAINS:
Highest: 2.8 (R) 6.6 (M)
Lowest: .8 (R) .1 (M)

AVERAGE GRADE GAIN
Reading: 1.65
Math: 2.48

RICHMOND:								
18 records	1)	3.2	4.7	1.5	4.0	4.0	0.0	6
	2)	4.5	4.5	0.0	4.9	6.7	1.8	11
	3)	5.3	6.2	.9	2.1	5.0	2.9	12
	4)	7.1	9.3	2.3	8.6	8.9	.3	11
	5)	7.9	10.0	2.1	5.2	9.0	3.8	12
	6)	8.9	8.9	0.0	8.5	10.9	2.4	9
	7)	10.4	10.4	0.0	7.6	10.9	3.3	3
	8)	12.9	12.9	0.0	9.5	10.9	1.4	12
	9)	5.1	7.3	2.2				8
	10)	4.1	5.1				1.0	12
	11)	4.2	4.7				.5	12
	12)	6.0	8.1				2.1	10
	13)	6.2	7.2				1.0	12
	14)	6.6	8.3				1.7	
	15)	7.3	11.5				4.2	12
	16)	7.4	11.0				3.6	12
	17)	7.6	8.8				1.2	12
	18)	8.1	9.1				1.0	12

RICHMOND SUMMARY REPORT:

GRADE GAINS:
Highest: 2.3 (R) 4.2 (M)
Lowest: .9 (R) .3 (M)

AVERAGE GRADE GAIN:
Reading: 1.0
Math: 1.89

PRE- AND POST- TEST SCORES

SITE	A V E R A G E S C O R E S GED Practice # ENTRY	GED Official ## EXIT	Point Gain	Weeks in Program
HARRIS COUNTY:	1) 33.6	42	8.4	4
8 records	2) 37.6	43.8	6.2	6
	3) 40.0	41.4	1.4	5
	4) 40.4	45.8	5.4	12
Summary:	5) 41.6	43.8	2.2	2
	6) 42.8	48.6	5.8	6
Highest: 8.4 pts	7) 43.6	49.8	6.2	6
Lowest: .6 pts	8) 45.8	46.4	.6	4
Avg: 4.3 pts	9) 52.6	55.6	3.0	6

	C A S A Reading Entry	Reading Exit	Math Entry	Math Exit	Grade Gain *	Weeks in Program
SAN JOAQUIN: 8 records	222	231	236	NA **	1.8	6
	222	236	245	NA	2.8	6
	222	236	244	NA	2.8	6
	225	NA	217	225	1.6	5
Summary:	228	NA	224	238	2.8	6
	228	NA	224	229	1.0	5
High: 2.8 (R), 2.8 (M)	236	NA	224	233	1.6	6
Low: 1.8 (R), 1.0 (M)	244	NA	217	232	2.8	6
Avg: 2.4 (R), 1.9 (M)						

\# Practice GED test was used as pre-test

Official GED score used as post-test

* Five points are equivalent to a grade (220-225 = Grade 8)

** Not applicable: a score of 225 (9th grade) was the minimal mastery score required of participants in this contract

70001 HOUSTON - STUDENT INFORMATION
PRINTED 07/06/89

BROWN. CARRIE
TABE READING :9.3 — TABE MATH SCORE :9.5
TABE LANGUAGE :9 — GED MATH ENTRY :43
GED READNG ENTRY:44 — GED SCIEN. ENTRY:20
GED SOC.STD ENTR:42 — GED WRITNG ENTRY:48
WKS @ IDEAL LRNG:2 — GED AVG. ENTRY :39.4
OFFICIAL GED AVG:00.00

CAMACHO. ERNEST
TABE READING :6.6 — TABE MATH SCORE :11.9
TABE LANGUAGE :5 — GED MATH ENTRY :51
GED READNG ENTRY:44 — GED SCIEN. ENTRY:35
GED SOC.STD ENTR:35 — GED WRITNG ENTRY:43
WKS @ IDEAL LRNG:2 — GED AVG. ENTRY :41.6
OFFICIAL GED AVG:43.80

CORMIER. JAMES
TABE READING :12.9 — TABE MATH SCORE :12.9
TABE LANGUAGE :7 — GED MATH ENTRY :48
GED READNG ENTRY:44 — GED SCIEN. ENTRY:33
GED SOC.STD ENTR:46 — GED WRITNG ENTRY:43
WKS @ IDEAL LRNG:6 — GED AVG. ENTRY :42.80
OFFICIAL GED AVG:48.6

FUENTES. MARY
TABE READING :7.4 — TABE MATH SCORE :6.9
TABE LANGUAGE :5 — GED MATH ENTRY :32
GED READNG ENTRY:46 — GED SCIEN. ENTRY:31
GED SOC.STD ENTR:35 — GED WRITNG ENTRY:38
WKS @ IDEAL LRNG:0 — GED AVG. ENTRY :36.4
OFFICIAL GED AVG:00.00

GARCIA. SONIA
TABE READING :12.5 — TABE MATH SCORE :12.9
TABE LANGUAGE :6 — GED MATH ENTRY :43
GED READNG ENTRY:54 — GED SCIEN. ENTRY:25
GED SOC.STD ENTR:35 — GED WRITNG ENTRY:45
WKS @ IDEAL LRNG:12 — GED AVG. ENTRY :40.4
OFFICIAL GED AVG:45.8

GONZALES. MARIE
TABE READING :12.9 — TABE MATH SCORE :9.3
TABE LANGUAGE :12 — GED MATH ENTRY :54
GED READNG ENTRY:57 — GED SCIEN. ENTRY:20
GED SOC.STD ENTR:50 — GED WRITNG ENTRY:46
WKS @ IDEAL LRNG:0 — GED AVG. ENTRY :45.4
OFFICIAL GED AVG:47

HOWARD. ANDTRICA
TABE READING :9.0 — TABE MATH SCORE :00.0
TABE LANGUAGE :0 — GED MATH ENTRY :46
GED READNG ENTRY:42 — GED SCIEN. ENTRY:31
GED SOC.STD ENTR:46 — GED WRITNG ENTRY:48

Sample Printout of Student Records (Harris County, TX)

Associate Questionnaire Ideal Learning

1. How long have you used Ideal Learning?

2. How many problems do you do in 10 minutes?

3. Do you get frustrated with any part of the program?

   If yes, please explain.

4. Can you see your progress as you work through the program?

5. Do you feel successful as you go through the program?

6. Do you think the material is too easy? too difficult? Just the right speed?

7. How is Ideal Learning different from reading books or listening to tape cassettes in the learning center?

8. Do you enjoy doing the program?

9. Do you have any additional comments about Ideal Learning?

STAFF
SURVEY

EVALUATION CHECKLIST

FOR INSTRUCTIONAL PROGRAMS AND/OR MATERIALS

EXCELLENT = (E) SATISFACTORY = (S) WEAK = (W) NON APPLICABLE = (N/A)

GOALS AND OBJECTIVES	E	S	W	NA
1. Purpose and rationale fully explained	___	___	___	___
2. Goals and objectives clearly identified	___	___	___	___
3. Content directed to stated goals and objectives	___	___	___	___
4. Procedures to determine student's readiness	___	___	___	___
5. Student achievement assessment included	___	___	___	___
CONTENT OF MATERIALS				
6. Concepts well developed and sequentially developed	___	___	___	___
7. Clear and non-conflicting concepts	___	___	___	___
8. Skills sequenced, introduced, and reviewed	___	___	___	___
9. Major points clearly identified	___	___	___	___
10. Computer assisted instructional materials integrated	___	___	___	___
11. Materials can be worked with independently or with minimum assistance	___	___	___	___
12. Reading level is appropriate for student in program	___	___	___	___
13. Content will stimulate and challenge students	___	___	___	___
OBJECTIVITY				
14. Information is valid & factual	___	___	___	___
15. Racial, sexual, and religious biases balanced	___	___	___	___

COMPONENTS AND ORGANIZATION	E	S	W	NA
16. Materials are of adequate proportions and easy to manipulate	___	___	___	___
17. Materials are relatively easy to use	___	___	___	___
18. Requires special inservice training	___	___	___	___
19. Materials are well designed and packaged	___	___	___	___
TEACHER MATERIALS				
20. Adequate teacher guides or materials provided	___	___	___	___
21. Provision for teacher-student interaction	___	___	___	___
22. Suggestions and instructions for meeting needs of students of varying levels are included	___	___	___	___
SUMMARY AND RECOMMENDATIONS				
24. Materials do what they are intended to do	___	___	___	___
25. Instructional materials or program would make a meaningful addition to most classroom activities	___	___	___	___
26. I would recommend the purchase of these materials to other programs	___	___	___	___

OTHER AREAS OR ASSESSMENT CONCERNS	E	S	W	NA
	___	___	___	___
	___	___	___	___